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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,995	02/21/2002	Mindaugas F. Dautartas	23091/16 (ACT-179)	1731
110 7590 12/05/2005 DANN, DORFMAN, HERRELL & SKILLMAN 1601 MARKET STREET SUITE 2400 PHILADELPHIA, PA 19103-2307			EXAMINER WOOD, KEVIN S	
			ART UNIT 2874	PAPER NUMBER

DATE MAILED: 12/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

8.1

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/081,995		DAUTARTAS, MINDAUGAS F.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Kevin S. Wood		2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 March 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 and 14-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 and 14-22 is/are allowed.
- 6) ☒ Claim(s) 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**NON-FINAL REJECTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 23 March 2005 has been entered.

***Response to Amendment***

2. This action is responsive to the After-Final Amendment filed on 23 December 2004, which has now been entered due to the Request for Continued Examination filed on 23 March 2005. Claims 1, 10, and 14 have been amended. Claims 1-11, and 14-22 are pending in the application.

***Response to Arguments***

3. Applicant's arguments, filed 23 December 2005, with respect to claims 1-10 and 14-21 have been fully considered and are persuasive. Claims 1, 10, and 14 have been amended to include limitations not shown in the prior art, therefore claims 1, 10, and 14 are found to be allowable over the prior art, along with all claims depending from them.

4. Applicant's arguments, filed 23 December 2005, with respect to claim 11 have been considered but are moot in view of the new ground(s) of rejection.

5. Applicant's arguments, filed 23 December 2005, with respect to claim 22 has been fully considered and are persuasive. These claims were already cited as being allowable over the prior art in a previous action.

### ***Drawings***

6. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the diffraction grating located on a non-tapered portion of a tapered optical waveguide (claim 11) and the diffraction grating located on a tapered portion of a tapered optical waveguide (claim 22) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

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Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,459,840 to Sato et al.

Referring to claim 11, Sato et al. discloses an optical device including: a waveguide (53) comprising an upper surface and a lower surface, the upper surface comprising a vertically tapered portion and a non-vertically tapered portion; and a diffraction grating (54) disposed on the upper surface at the non-vertically tapered portion, wherein the waveguide and the diffraction grating are made from an optical material, and where in the optical material is over a substrate (51) common to both the waveguide and the diffraction grating, the substrate disposed on the lower surface of the waveguide. See Fig. 1-4, along with their respective portions of the specification. The Sato et al. reference does not appear to specifically disclose that the diffraction grating and the optical waveguide are made from a monolithic optical material. The applicant has not disclosed the criticality of the optical waveguide and the diffraction

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grating being made of a monolithic optical material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the diffraction grating and the optical waveguide from a monolithic optical material, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

***Allowable Subject Matter***

9. Claims 1-10 and 14-22 are allowed.

10. The following is an examiner's statement of reasons for allowance:

Referring to claims 1-10 and 14-21, the primary reason for the allowance of these claims is the inclusion of the waveguide being a rib waveguide.

Referring to claim 10, the primary reason for the allowance of these claims is the inclusion of the mask being a comb, where the comb comprises tapered teeth.

Referring to claim 22, the primary reason for the allowance of these claims is the inclusion of the diffraction grating included on the upper surface of the tapered portion of the optical waveguide, wherein the waveguide and the diffraction grating are a monolithic optical material.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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**Conclusion**

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin S. Wood whose telephone number is (571) 272-2364. The examiner can normally be reached on Monday-Thursday (7am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney B. Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*KSW*

Kevin S. Wood

*Akmal*  
AKM ENAYET ULLAH  
PRIMARY EXAMINER